

Amendments to the Claims:

Claims 1-26 (cancelled).

27. (Currently Amended) A borehole treatment composition comprising: an aqueous phase; a non-aqueous oil phase; emulsifiers; and, optionally, further additives, including weighting agents, fluid loss additives, viscosity regulators, wetting agents, salts, biocides, corrosion inhibitors and an alkali reserve[[.]];

wherein said the non-aqueous oil phase comprising comprises an admixture of a) and c), b) and c), or a) and b) and c);

wherein:

- a) paraffins having from 5 to 22 carbon atoms; and optionally;
- b) internal olefins having from 12 to 30 carbon atoms in the molecule, in admixture with;
- and
- c) carboxylic acid esters of the formula R-COO-R', where R stands for a linear or branched, saturated or unsaturated alkyl radical having from 15 to 25 carbon atoms and R' denotes a saturated, linear or branched alkyl radical having from 3 to 22 carbon atoms; wherein, the ratio of the toxicity of internal olefins of chain length C₁₆₋₁₈ to the toxicity of the non-aqueous oil phase, in each case as measured by the Leptocheirus plumulosus acute, static 96 hour/10 day sediment toxicity test in accordance with ASTM E 1367 – 92 & EPA/600/R-94/025, Section 11, is less than 1, wherein the non-aqueous oil phase contains at least 50 % by weight of component a), based on the weight of the oil phase.

28. (Previously Presented) The borehole treatment composition of claim 27, in the form of a water-in-oil emulsion.

29. (Previously Presented) A drilling mud comprising the borehole treatment composition of claim 27.

30. (Previously Presented) The borehole treatment composition of claim 27, wherein, the weight ratio of the aqueous phase to the non-aqueous oil phase is from 50:50 to 1:99.

31. (Canceled)

32. (Previously Presented) The borehole treatment composition of claim 27, wherein, component a) comprises at least one member selected from the group consisting of linear and branched paraffins having from 10 to 21 carbon atoms

33. (Previously Presented) The borehole treatment composition of claim 27, wherein, component b) comprises at least one member selected from the group consisting of internal olefins having from 14 to 24 carbon atoms.

34. (Previously Presented) The borehole treatment composition of claim 27, wherein, component c) comprises esters of the formula R-COO-R' in which R stands for saturated or unsaturated linear alkyl radicals having from 15 to 23 carbon atoms and R' denotes a linear or branched saturated alkyl radical having from 6 to 22 carbon atoms.

35. (Previously Presented) The borehole treatment composition of claim 27, wherein, in addition to the esters, the composition comprises not more than 15% by weight, based on the oil phase, of esters with radicals R having more than 23 carbon atoms.

36. (Cancelled)

37. (Cancelled)

38. (Currently Amended) The borehole treatment composition of claim 27, wherein, in addition to a), c) and optionally b) there are wherein said non-aqueous oil phase further comprises:

environmentally compatible, water-insoluble components present.

39. (Previously Presented) The borehole treatment composition of claim 27 further comprising esters of C1-C5 monocarboxylic acids with monofunctional and/or polyfunctional alcohols, the monofunctional alcohols having at least 6 carbon atoms and the polyfunctional alcohols having from 2 to 6 carbon atoms per molecule.

40. (Previously Presented) The borehole treatment composition of claim 27, wherein, the non-aqueous oil phase further comprises at least one secondary ester selected from the group consisting of propyl carboxylate, butyl carboxylate, pentyl carboxylate, hexyl carboxylate, heptyl carboxylate, octyl carboxylate, nonyl carboxylate, decyl carboxylate, undecyl carboxylate, dodecyl carboxylate, tridecyl carboxylate, tetradecyl carboxylate, pentadecyl carboxylate, hexadecyl carboxylate, heptadecyl carboxylate, octadecyl carboxylate, nonadecyl carboxylate, eicosyl carboxylate, uneicosyl carboxylate, docicosyl carboxylate and isomers thereof, wherein the secondary esters each have a carboxylate group of 1 to 5 carbon atoms.

41. (Previously Presented) The borehole treatment composition of claim 27, wherein, the non-aqueous oil phase has a pour point of below 0°C.

42. (Previously Presented) The borehole treatment composition of claim 27 in the form of an oil-based drilling mud of the water-in-oil type having a plastic viscosity (PV) in the range from 10 to 70 mPas and a yield point (YP) from 5 to 60 lb/100 ft², measured in each case at 50°C, wherein, the non-aqueous oil phase has a Brookfield viscosity at 0°C of not more than 50 mPas.

43. (Previously Presented) The composition of claim 27 in the form of an oil-based drilling mud of the water-in-oil type; the drilling mud having a plastic viscosity (PV) in the range from 10 to 60 mPas and a yield point (YP) from 5 to 40 lb/100 ft², measured in each case at 50°C.

44. (Previously Presented) The borehole treatment composition of claim 27, wherein, the oil phase has an Ubbelohde viscosity at 20°C of not more than 12 mm²/s.

45. (Previously Presented) The borehole treatment composition of claim 27, wherein, the aqueous phase has a pH in the range from 7.5 to 11.

46. (Previously Presented) The borehole treatment composition of claim 27, wherein, the non-aqueous oil phase comprises blends of components a) and c) in a weight ratio the sum of a) and b) to c) of from 10:1 to 1:1.

47. (Previously Presented) The borehole treatment composition of claim 27 comprising a non-aqueous oil phase component b) having a relative toxicity in relation to standard IOs of chain length C₁₆₋₁₈ greater than 1, wherein, c) is present in the non-aqueous oil phase to reduce the relative toxicity.

48. (Previously Presented) The borehole treatment composition of claim 27 in the form of an invert drilling mud with low toxicity.

Claims 49-55 (Cancelled)

56. (New) The borehole treatment composition of claim 27, said non-aqueous oil phase further comprising organophilic clay.

57. (New) The borehole treatment composition of claim 27, wherein said carboxylic acid esters of the formula R-COO-R', include a total of from about 20 to about 22 carbon atoms.

58. (New) A borehole treatment composition comprising: an aqueous phase; a non-aqueous oil phase; emulsifiers; and, optionally, further additives, including weighting agents, fluid loss additives, viscosity regulators, wetting agents, salts, biocides, corrosion inhibitors and an alkali reserve;

wherein said non-aqueous oil phase comprises an admixture of a) and c), b) and c), or a) and b) and c);

wherein:

- a) paraffins having from 5 to 22 carbon atoms;
- b) internal olefins having from 12 to 30 carbon atoms in the molecule; and
- c) C₈₋₁₄ fatty acid ester of 2-ethylhexanol;

wherein the ratio of the toxicity of internal olefins of chain length C₁₆₋₁₈ to the toxicity of said non-aqueous oil phase, in each case as measured by the Leptocheirus plumulosus acute, static 96 hour/10 day sediment toxicity test in accordance with ASTM E 1367 – 92 & EPA/600/R-94/025, Section 11, is less than 1.